



UNITED STATES PATENT AND TRADEMARK OFFICE

147

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,142	10/31/2003	Scott E. Moore	500170.14 (29785/US/7)	2932

7590 02/24/2005

Steven H. Arterberry, Esq.
DORSEY & WHITNEY LLP
Suite 3400
1420 Fifth Avenue
Seattle, WA 98101

EXAMINER

RACHUBA, MAURINA T

ART UNIT	PAPER NUMBER
----------	--------------

3723

DATE MAILED: 02/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/698,142	Applicant(s) MOORE, SCOTT E.	
	Examiner M Rachuba	Art Unit 3723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 85-93 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 85-93 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>see action</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of species 1 in the reply filed on 29 November 2004 is acknowledged.

Information Disclosure Statement

2. The information disclosure statements filed 31 October 2003, 17 February 2004 and 28 January 2005 have been considered.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 85, ⁸⁸~~89~~ and 91-93 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tolles et al US005738574A in view of Wilson et al, US006149512A. '574 discloses the claimed invention, column 7, lines 6-36, except for the planarizing medium being a continuous polishing pad positioned around a pair of spaced apart rollers, or there being two planarizing positions located on opposite sides of the continuous belt. '512, figures 2a-2b and column 4, lines 18-20, teaches providing a planarizing medium being a continuous polishing pad positioned around a pair of spaced apart rollers, with two planarizing positions located on opposite sides of the continuous belt. It would have been obvious to one of ordinary skill to have provided '574 with the continuous polishing pad around a pair of spaced apart rollers, with two

polishing positions as taught by '512, to allow even polishing of the substrate without excessive wear in the center of the pad, column 1, lines 49-55. Regarding claim 93, the examiner takes Official notice that it is old and well known in the art to condition polishing pads during polishing of substrates, or when the substrates are removed from the pad, as the conditioning of the pad takes place on an area of the pad away from the polishing area and normally does not interfere with substrate polishing.

5. Claims 85 and 89 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson et al, US006149512A in view of Tolles et al US005738574A. Regarding claims 85 and 89, '512 discloses everything claimed except detecting a frictional force between the conditioning body and the continuous planarizing medium; and controlling at least one of a force between the conditioning body and the continuous planarizing medium and a speed of the conditioning body relative to the continuous planarizing medium in response to detecting the frictional force between the conditioning body and the planarizing medium. '574, in a similar method, teaches detecting a frictional force between the conditioning body and the continuous planarizing medium; and controlling at least one of a force between the conditioning body and the continuous planarizing medium and a speed of the conditioning body relative to the continuous planarizing medium and controlling either the conditioning force or the conditioning speed. It would have been obvious to one of ordinary skill to have provided '512 with the detection of friction as taught by '574, column 7, lines 6-36, to ensure that all areas of the pad are properly conditioned regardless of areas of glazing.

6. Claims 86 and 87 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tolles et al US005738574A in view of Wilson et al, US006149512A as applied to claim 85 above, and further in view of Inaba et al, US006093080A . '574 as modified by '512 does not disclose that least one of a force between the conditioning body and the continuous planarizing medium comprises receiving a first signal corresponding to the frictional force and transmitting a second signal to an actuator coupled to the conditioning body; or that receiving the first signal comprises receiving the first signal with a microprocessor and wherein transmitting the second signal comprises transmitting the second signal from the microprocessor. '080, figure 1 and column 7, lines 27-31 teaches controlling the conditioning of a polishing pad by receiving a first signal corresponding to a frictional force between a body and a polishing pad, and transmitting a signal to the conditioning actuator via a microprocessor (circuit) to control the conditioner. It would have been obvious to one of ordinary skill to have provided '574 as modified by '512 with the control system of '080, to provide accurate interaction between the conditioner and media, to condition the media without excess wear.

7. Claim 90 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson et al, US006149512A in view of Tolles et al US005738574A and further in view of Tietz US006135859A. '512 does not disclose supporting the pad with a continuous support band. '859, figure 20, teaches support a linear continuous pad with a continuous support band, figures 20-23. It would have been obvious to one of ordinary skill to have provided '512 with the support sheet taught by '859, column 1, lines 57-66 to prevent

the polishing pad from directly contacting the platen, preventing the pad from sticking to the platen, making it difficult and time consuming to change.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M Rachuba whose telephone number is **(571) 272-4493**. The examiner can normally be reached on Monday-Thursday from 8:30 AM to 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hail, can be reached on (571) 272-4485. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M. Rachuba
Primary Patent Examiner

A handwritten signature in black ink, appearing to be 'M. Rachuba', written over a horizontal line.